

As the Continents Moved

*Imagine you were able to travel in time...you could visit Michigan over its geologic past.
Take a little time to visualize what you would see.*

1,000,000 years ago

Precambrian times



410,000 years ago

Devonian Period



180,000 years ago

Jurassic Period



10 million years ago

Cenozoic



Research with Your Group

If you have access to a computer, watch the movement of the continents at *The Dynamic Earth* website, <http://pubs.usgs.gov/publications/text/dynamic.html>. Answer these questions:

1. Areas of the Earth that are now very cold once had fossils of organisms that required warm temperatures. How does the simulation of continental drift help explain this? _____

2. What happened to Michigan's location during the past 500 million years? _____

Now go to the *Tapestry of Time and Terrain* website: <http://tapestry.usgs.gov>. Click the "boundaries" area, and then click the Michigan area twice.

3. During what period was most of the bedrock in the Lower Peninsula laid down? _____

4. How does the Upper Peninsula differ? _____

With your group, find as much information about Michigan's story as you can to fill in the chart below.

Geologic Time Table

ERA	PERIOD	RECORD OF CHANGE	MILLION YEARS AGO
CENOZOIC ERA Age of Mammals	Quaternary		1.5
	Tertiary		65
MESOZOIC ERA Age of Dinosaurs	Cretaceous		140
	Jurassic		180
	Triassic		240
PALEOZOIC ERA Age of Amphibians Age of Fishes Age of Invertebrates	Permian		280
	Carboniferous		350
	Devonian		410
	Silurian		440
	Ordovician		490
	Cambrian		600
PRECAMBRIAN	Precambrian		1000
			3000
			4500

Build a Model

Obtain a piece of tape nine meters long. Mark the tape into nine 1-meter lengths. Each meter represents 500 million years of Earth's history. Mark the last two meters into centimeters. Each centimeter represents 5 million years. Then mark the last two centimeters into millimeters. Each millimeter = 500,000 years. Finally, put as much information as you can about Earth's history in the appropriate areas of your tape.